

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended)

A substrate treatment method for treating a substrate by supplying a treatment liquid to the substrate while rotating the substrate, the method comprising the steps of:

performing a first substrate rotation process for rotating the substrate while clamping the substrate by a first clamping member set including at least two first clamping members, the first clamping members being in abutment against a peripheral surface of the substrate during the first substrate rotation process;

performing a second substrate rotation process after the first substrate rotation step for rotating the substrate while clamping the substrate by the first clamping member set and a second clamping member set provided separately from the first clamping member set and including at least two second clamping members, the first and second clamping members being in abutment against the peripheral surface of the substrate during the second substrate rotation process; and

performing a third substrate rotation process after the second substrate rotation step by unclamping the substrate from the first clamping member set for rotating the substrate while clamping the substrate by the second clamping member set, the first clamping members being retracted from the peripheral surface of the substrate during the third substrate rotation process, the second clamping members being in abutment against the peripheral surface of the substrate during the third substrate rotation process.

Claim 2 (Currently Amended)

A substrate treatment method as set forth in claim 1, wherein the clamping of the substrate by the first clamping member set is achieved by at least three clamp pins included in the first clamping member set, the clamp pins being brought into abutment against the peripheral surface of the substrate when the first clamping member set clamps the substrate.

Claim 3 (Currently Amended)

A substrate treatment method as set forth in claim 1, wherein the clamping of the substrate by the second clamping member set is achieved by at least three clamp pins included in the second clamping member set, the clamp pins being brought into abutment against the peripheral surface of the substrate when the first clamping member set clamps the substrate.

Claim 4 (Currently Amended)

A substrate treatment method as set forth in claim 1,
wherein the clamping of the substrate by the first clamping member set is achieved by at least three first clamp pins included in the first clamping member set, the first clamp pins being brought into abutment against the peripheral surface of the substrate when the first clamping member set clamps the substrate,

wherein the clamping of the substrate by the second clamping member set is achieved by at least three second clamp pins included in the second clamping member

set, the second clamp pins being brought into abutment against the peripheral surface of the substrate when the second clamping member set clamps the substrate,.

Claim 5 (Original)

A substrate treatment method as set forth in claim 1, further comprising the step of supplying the treatment liquid to a surface of the substrate being rotated at least in the first substrate rotation step and the third substrate rotation step.

Claim 6 (Original)

A substrate treatment method as set forth in claim 5, wherein the treatment liquid supply step comprises the step of supplying an etching liquid for etching away an unnecessary substance from a peripheral edge portion of the substrate.

Claim 7 (Original)

A substrate treatment method as set forth in claim 1, further comprising the step of supplying the treatment liquid to the substrate prior to the first substrate rotation step, wherein the treatment liquid is not supplied to the substrate during any of the first substrate rotation step, the second substrate rotation step and the third substrate rotation step, but a drying process is performed by spinning off the treatment liquid by the rotation of the substrate.

Claim 8 (Currently Amended)

A substrate treatment method as set forth in claim 1,
wherein the clamping members of at least one of the first clamping member set and the second clamping member set each have at least two abutment portions which are selectively brought into abutment against the substrate,
the method further comprising the step of ~~switchably~~ bringing the at least two abutment portions into abutment against the substrate.

Claim 9 (Currently Amended)

~~A substrate treatment method as set forth in claim 1,~~
A substrate treatment method for treating a substrate by supplying a treatment liquid to the substrate while rotating the substrate, the method comprising the steps of:
performing a first substrate rotation process for rotating the substrate while clamping the substrate by a first clamping member set including at least two clamping members,
performing a second substrate rotation process after the first substrate rotation step for rotating the substrate while clamping the substrate by the first clamping member set and a second clamping member set provided separately from the first clamping member set and including at least two clamping members; and
performing a third substrate rotation process after the second substrate rotation step by unclamping the substrate from the first clamping member set for rotating the substrate while clamping the substrate by the second clamping member set,

wherein the first clamping member set includes three clamping members each having a first abutment portion and a second abutment portion which are selectively brought into abutment against the substrate, and the second clamping member set includes three clamping members each having a third abutment portion which is brought into abutment against the substrate,

wherein the first substrate rotation step comprises the step of bringing the first abutment portions of the three clamping members of the first clamping member set into abutment against the substrate for clamping the substrate,

wherein the second substrate rotation step comprises the step of bringing the third abutment portions of the three clamping members of the second clamping member set into abutment against the substrate with the first abutment portions of the three clamping members of the first clamping member set kept in abutment against the substrate,

wherein the third substrate rotation step comprises the step of retracting the first abutment portions of the three clamping members of the first clamping member set from the substrate,

the method further comprising the steps of:

performing a fourth substrate rotation process after the third substrate rotation step by bringing the second abutment portions of the three clamping members of the first clamping member set into abutment against the substrate with the third abutment portions of the three clamping members of the second clamping member set kept in abutment against the substrate for rotating the substrate while clamping the substrate by the first and second clamping member sets; and

performing a fifth substrate rotation process after the fourth substrate rotation step by retracting the third abutment portions of the three clamping members of the second clamping member set from the substrate to unclamp the substrate from the second clamping member set for rotating the substrate while clamping the substrate by the first substrate clamping member set.

Claim 10 (Original)

A substrate treatment method as set forth in claim 9,

wherein the three clamping members of the second clamping member set each have the third abutment portion and a fourth abutment portion which are selectively brought into abutment against the substrate,

the method further comprising the steps of:

performing a sixth substrate rotation process after the fifth substrate rotation step by bringing the fourth abutment portions of the three clamping members of the second clamping member set into abutment against the substrate with the second abutment portions of the three clamping members of the first clamping member set kept in abutment against the substrate for rotating the substrate while clamping the substrate by the first and second clamping member sets; and

performing a seventh substrate rotation process after the sixth substrate rotation step by retracting the second abutment portions of the three clamping members of the first clamping member set from the substrate to unclamp the substrate from the first

clamping member set for rotating the substrate while clamping the substrate by the second clamping member set.

Claim 11 (Original)

A substrate treatment method as set forth in claim 9, further comprising the step of supplying the treatment liquid to a surface of the substrate being rotated at least in the first substrate rotation step, the third substrate rotation step and the fifth substrate rotation step.

Claim 12 (Original)

A substrate treatment method as set forth in claim 10, further comprising the step of supplying the treatment liquid to a surface of the substrate being rotated at least in the first substrate rotation step, the third substrate rotation step, the fifth substrate rotation step and the seventh substrate rotation step.

Claim 13 (Original)

A substrate treatment method as set forth in claim 11, wherein the treatment liquid supply step comprises the step of supplying an etching liquid for etching away an unnecessary substance from a peripheral edge portion of the substrate.

Claim 14 (Original)

A substrate treatment method as set forth in claim 12, wherein the treatment liquid supply step comprises the step of supplying an etching liquid for etching away an unnecessary substance from a peripheral edge portion of the substrate.

Claim 15 (Original)

A substrate treatment method as set forth in claim 9, further comprising the step of supplying the treatment liquid to the substrate prior to the first substrate rotation step, wherein the treatment liquid is not supplied to the substrate during any of the first to fifth substrate rotation steps, but a drying process is performed by spinning off the treatment liquid by the rotation of the substrate.

Claim 16 (Original)

A substrate treatment method as set forth in claim 10, further comprising the step of supplying the treatment liquid to the substrate prior to the first substrate rotation step, wherein the treatment liquid is not supplied to the substrate during any of the first to seventh substrate rotation steps, but a drying process is performed by spinning off the treatment liquid by the rotation of the substrate.

Claims 17-67 (Canceled)